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## Exam Review: Unit 1

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- Vocabulary

Factors	Multiples	GCF	LCM
Prime number	Composite number	Common Factors	Squares
Square Roots	Dividend	Divisor	Quotient
Remainder	Exponents	Base	Power

1. Calculate without using a calculator.

- |                   |                    |                   |
|-------------------|--------------------|-------------------|
| a. $4394 - 2342$  | b. $1294 + 2342$   | c. $34973 - 5296$ |
| d. $24 \times 39$ | e. $105 \times 22$ | f. $45 \times 35$ |
| g. $96 \div 8$    | h. $144 \div 6$    | i. $4800 \div 80$ |

2. Calculate without using a calculator.

- |           |           |          |
|-----------|-----------|----------|
| a. $12^2$ | b. $8^2$  | c. $4^2$ |
| d. $10^2$ | e. $15^2$ | f. $9^2$ |
| g. $11^2$ | h. $18^2$ | i. $6^2$ |

3. David notices that  $2^2 = 4$  and  $2 \times 2 = 4$ . He concludes squaring a number is the same as multiplying it by 2.

Is David correct? Explain.

4. Calculate without using a calculator

- |                 |                 |                 |
|-----------------|-----------------|-----------------|
| a. $\sqrt{256}$ | b. $\sqrt{25}$  | c. $\sqrt{324}$ |
| d. $\sqrt{361}$ | e. $\sqrt{16}$  | f. $\sqrt{4}$   |
| g. $\sqrt{169}$ | h. $\sqrt{196}$ | i. $\sqrt{26}$  |

NAME: \_\_\_\_\_

5. List all the factors of all the numbers below.

a. 12: \_\_\_\_\_

b. 36: \_\_\_\_\_

c. 50: \_\_\_\_\_

d. 42: \_\_\_\_\_

e. 51: \_\_\_\_\_

f. 35: \_\_\_\_\_

g. 20: \_\_\_\_\_

h. 60: \_\_\_\_\_

i. 49: \_\_\_\_\_

6. Find all common factors of the numbers below.

a. 14, 12

b. 36, 54

c. 28, 48

7. \_\_\_\_\_ is the only number that is the factor of every number.

8. What is the difference between a factor and a multiple?

9. List first five multiples of the numbers below.

a. 2: \_\_\_\_\_

b. 3: \_\_\_\_\_

c. 5: \_\_\_\_\_

d. 12: \_\_\_\_\_

e. 15: \_\_\_\_\_

f. 25: \_\_\_\_\_

g. 40: \_\_\_\_\_

NAME: \_\_\_\_\_

**Math 7**

10. What are prime numbers? Give examples of 10 prime numbers.

11. What are composite numbers? Give examples of 10 composite numbers.

12. Is 117 a prime number? Explain.

13. Complete the chart below. [The first one has been done for you]

	Numbers	Factors	Multiples	LCM	GCF
a.	2	1,2	2,4,6	6	1
	3	1,3	3,6,12		
b.	4				
	6				
c.	12				
	14				
d.	16				
	18				
e.	6				
	8				
f.	15				
	25				
g.	12				
	16				

14. Identify the base and the exponent.

a.  $4^8$

Base:  
Exponent:

b. 17

Base:  
Exponent:

c.  $(-8)^3$

Base:  
Exponent:

d.  $d^6$

Base:  
Exponent:

e.  $b^2$

Base:  
Exponent:

f.  $2^{-5}$

Base:  
Exponent:

- Any number to the exponent 0 is always \_\_\_\_.

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15. Write in the expanded form.

a.  $4^3$

b.  $7^5$

c.  $10^6$

d.  $12^{-1}$

e.  $42^2$

f.  $9^0$

16. Write in the exponent form.

a.  $4 \times 4 \times 4$

b.  $2 \times 2 \times 2 \times 2$

c.  $6 \times 6$

d.  $3 \times 3 \times 3 \times 3 \times 3$

e.  $24 \times 24 \times 24 \times 24 \times 24$

f.  $5 \times 5 \times 5$

g.  $10 \times 10 \times 10 \times 10 \times 10$

h. 40

i.  $14 \times 14 \times 14 \times 14$

17. Write these numbers from the smallest to greatest:  $3^5$ ,  $5^2$ ,  $3^4$ ,  $6^3$ .

18. Describe the pattern and then write the next three terms.

a. 7, 9, 11, 13, ...

b. 1, 5, 25, 125, ...

c. 5, 8, 11, 13, ...

d. 101, 111, 121, ...

e. 200, 199, 201, 198, ...

f. 2, 6, 12, 20, ...